Direct and indirect transmission be-
tween infected hosts and susceptible individu-
als is favoured by high population densities
(e.g. during lambing or calving), and by close
contact (e.g. during recreational bathing or
consumption of contaminated water).
Detection of Cryptosporidium has traditionally
been based on microscopic and staining tech-
niques, but these do not discriminate among
many of the species of Cryptosporidium, and
neither do antibody-based tests such as en-
zyme linked immunosorbent assays (ELISA)
and immunofluorescent microscopy. On the
other hand, molecular biology has provided
powerful tools for characterising Cryptospo-idium, and the analysis of previously unrecog-
nised genetic differences within the genus
has revolutionised both the taxonomy and our
understanding of the epidemiology of the dis-
ease in humans. Molecular tools have enabled
not only the identification of species/geno-
types in the faeces of infected hosts, but also
their recognition in water and food samples. At
least seven species (C. hominis, C. parvum,
C. meleagris, C. felis, C. canis, C. suis, and
C. muris) and two genotypes (monkey and
cervine) of Cryptosporidium are associated
with human disease, and molecular approach-
ues have enabled a greater understanding of
the contributions of humans and livestock as
reservoirs of infection. Using species typing
tools, differences in geographical and tempo-
dral distribution, disease presentations and risk
factors for infection have been identified for
C. parvum and C. hominis, the most commonly
reported causes of human cryptosporidiosis.

Aims and objectives of Workpackage 12
The overall objective of the project is to
implement the detection and identification of
the protozoan pathogen Cryptosporidium
through harmonisation and standardisation
of methods, including molecular methods, at
the pan-European level. This should increase
knowledge on the biological properties of
Cryptosporidium isolates (in particular, the
differences in virulence, host specificity and
transmission routes), and eventually lead to
estimate the risk of food and waterborne infec-
tion and to identify effective control measures.
The workpackage leader is Simone M. Cacci-
io of the Istituto Superiore di Sanità (ISS)
in Rome, Italy. There are ten participating
Institutes from eight European countries
working on Workpackage 12 which began on
1 September 2004 and will be completed by 1
March 2006.

Workpackage tasks
Task 1: Working group establishment.
The network was established at the kick-off
meeting, held at the ISS in Rome on 14-15
October 2004. The meeting was very useful
in terms of the interaction between partners.
All the activities scheduled for Workpackage
12 were discussed in a pleasant and friendly
atmosphere.
One important question concerned the level
development in the different European countries,
and it was soon recognised that identifying
common sources of data is difficult, because
the situation varies considerably between
countries. To update our knowledge about the
detection and control of cryptosporidiosis in
Europe, two approaches were used:
i) a specific questionnaire was developed,
ii) a review of the literature data was per-
formed.
Each partner was responsible for completing
the questionnaire and continuing the literature
review from his/her country. This resulted in
a large amount of data being collected, which
was unavailable before. This information will
be used in the development of specific
sections of the database (Task 2).

Task 2: Database development.
The database will be “static”, and com-
posed of a number of sections where
updated information on Cryptosporidium
and cryptosporidiosis will be presented.
The information collected (also as an
outcome of Task 1) on the epidemiology
of the infection in each country will be
used to highlight the current situation
in Europe. Furthermore, the different
methodologies for recovery and charac-
terisation of the parasite from different
matrices will be presented and dis-
cussed. The database will be available
to the public, as it represents a means of
sharing knowledge and will disseminate
scientifically correct information to increase awareness of this widespread infection. At present, the development of the database has been completed to an IT company based in Rome, and work is in progress in close collaboration with Workpackage12 partners. We have had good communication with the bioinformatic team of Med-Vet-Net, with helpful discussions at the Med-Vet-Net General Scientific Meeting which was held in Winchester, UK on 20 June and 1 July, 2005.

**Task 3: Establishment of repositories for reference material.**

The main objective of this task is to provide access to a well-characterised source of the most common Cryptosporidium species for all partners. Indeed, the availability of reference material is a defined advantage for those institutes that want to set up detection methods, including molecular biology techniques. Furthermore, reference material (particularly oocysts and extracted nucleic acids) can be used for standardisation of protocols, validation studies, and spiking experiments. Two partners, ISS (Italy) and DFVF (Denmark), are in charge of this task. Cryptosporidium isolates of both human and animal origin have been collected during the first year of the project, and have been characterised by Polymerase Chain Reaction (PCR) assays targeting the 18S ribosomal RNA (rDNA), the Heat Shock Protein 70 and the Cryptosporidium Oocyst Wall Protein genes. Following their analysis by sequencing and/or by Restriction Fragment Length Polymorphism analysis (PCR-RFLP), these markers provide exact information about the species of Cryptosporidium present in the samples. Reference samples, representing the two major human pathogenic species, C. hominis and C. parvum are available to partners upon request.

**Developments Meetings outcome**

The preliminary work programme for the project was discussed during the first meeting which was held on October 14-15, 2004 at ISS in Rome, Italy. The participants consisted of 10 scientists from 9 different Institutes. During the first day, the participants presented their Institute’s research activities, informing all partners about the level of expertise in the field. On the second day, the discussion focussed on the different aspects of the project, and on the practical organisation of the work. Two topics were discussed in detail, namely:

(i) Data collection on cryptosporidiosis in Europe

(ii) Molecular methods for the detection and species identification of Cryptosporidium.

As a result, a questionnaire for data collection and a review document on molecular diagnostic assays were produced. Furthermore, the Med-Vet-Net General Scientific Meeting (see above) was an ideal occasion to discuss on-going and future activities of the Workpackage, and to put this into a wider context. Several oral presentations and posters were presented by Workpackage12 partners at this meeting.

**Transfer of knowledge and integration activities**

During the first year of the project, two scientists visited the laboratory of Dr. Simone M. Cacciò at the Istituto Superiore di Sanità in Rome, Italy. Both scientists gratefully acknowledged the financial support obtained from the Med-Vet-Net project (WP2A).

Dr. Alessandro Broglia, from the laboratory of Dr. Karsten Noeckler at the BfR in Berlin, spent a week here during February 2005. The purpose of his visit was to exchange protocols and ideas with respect to the molecular detection and genotyping of Cryptosporidium.

Dr. Peter Wielinga, currently working with Dr. Joke van der Giessen at the RIVM in Bilthoven, visited the laboratory during July 2005. The purpose of his visit was to discuss the different aspects related to the development of web-based resources. In particular, the Cryptosporidium and Giardia bionumerical database recently developed at RIVM by Dr. Wielinga and his colleagues, was used as a platform to identify and discuss the key elements of the development of future databases.

**Simone Cacciò**

**Leader of Workpackage 12 – Dr. Simone M Cacciò**

Dr. Simone M. Cacciò is a molecular biologist who is 45 years old. He is a scientist in the Department of Infectious, Parasitic and Immunomediated Diseases at the Istituto Superiore di Sanità (ISS) in Rome. He graduated in Biological Sciences at the University of Pavia in 1985, and obtained a PhD in Genetics and Molecular Biology in 1992. His main research interests include the molecular epidemiology of intestinal protozoa, particularly Cryptosporidium and Giardia.

**ADMINISTRATION BUREAU UPDATE**

**Financial management**

The first annual financial report and JPA financial planning will be completed by the end of October. Institute Representatives, Financial Officers and the Administration Bureau have all been involved in this demanding process. Individual financial reports have now been received with audit certificates from most Partners. The second payment from the Co-ordinator to the Partner Institutes is expected to be paid by December 2005. This payment accommodates adjustments to the budget allocations as requested by the partners in accordance with the Consortium Agreement.

The timing of the third payment to the Partner Institutes is dependant on the approval of the Annual Report by the EC. This could take 90 days after receipt of the report and therefore is not expected until February 2006. In addition to the funds allocated for Workpackages, each partner will receive funds for a contribution to financial management. This will be calculated on the basis of level of partner participation in the network. The calculations will be approved by the Governing Board and are expected to be distributed in March 2006. The second wave of Workpackages will begin on 1 March 2006. Contracts for each new workpackage will be distributed for signature before the end of 2005.

**Management meetings**

**Co-ordinating Forum**

The third Co-ordinating Forum meeting was held at AFSSA on 29 September 2005 under the chairmanship of Diane Newell. All Partner Institutes were represented. At this meeting the scientific and financial aspects of the draft Annual Report and the Second Joint Programmes were reviewed. Specific important scientific and financial management topics were discussed. Among the topics of high priority were the two delayed Workpackages 4 and 6, the sustainability of the Network, the development of external collaborations, and the utilisation of unspent funds. The minutes will be published on the website (See overleaf for photograph of participants).

**Advisory Panel**

The Advisory Panel comprises four external expert scientists who advise the Governing Board on the scientific direction of the network. The second Advisory Panel meeting was held at AFSSA on 10 October 2005. The aims of this meeting were to define the Terms of Reference for the Advisory Panel, review the progress of the first year and the second Joint Programme of Activities. Further network information was provided to the panel by Andre Jestin, Diane Newell and Claire Cassar. The recommendations of the Advisory Panel will be published with the minutes on the website, however, the Panel was impressed by the progress to date. The Advisory Panel also has an observer from The European Food Safety Agency (EFSA) and a further observer from the European Centre for disease control and prevention (ECDC) has been invited to attend future meetings.

**Governing Board**

The third Governing Board meeting was held at AFSSA on 14 October 2005 under the chairmanship of Peter Borriello. All Partner Institutes were represented. Laurent Bochereau and Jean-Charles Cavitte, (our new liaison officer) from EC DG-Research were also present. Reports were provided from the Co-ordinating Forum and the Advisory Panel, as well as on Workpackage scientific progress and financial budgets. In addition, the sustainability of the Network, development of collaborations with external institutes and associations between Med-Vet-Net and European agencies such as ECDC and EFSA were discussed. The Governing Board approved the workpackage activities and financial status of the network and applauded the scientific progress that has been achieved in this first year and in particular recognised the Project Management and Administration Bureau activities in this success. The minutes of this meeting will also be published on the website.
The Project Management Team has been extremely busy over the last month with the management meetings and delivery of the First Scientific Annual Report and the Scientific Plans for the Second Joint Programme of Activities. These documents are currently being designed in a magazine-like format by the Communications Unit and will be placed on the private website as soon as possible.

**Annual Report**
The Annual Report comprises an Executive Summary suitable for publication in non-scientific literature, as well as a review of the state-of-art network activities in an international context, detailed progress reports from each of the three overarching Workpackages and the eleven research Workpackages, an analysis of management issues, and finally, lists of progress in milestones and deliverables against targets.

**The Second Joint Programme of Activities**
The plans for the Second Joint Programme of Activities (JPA2) are also required for submission to the EC at the same time as the Annual Report. The document comprises an overview of network direction and updated detailed plans for the three overarching Workpackages. Essentially the three overarching Workpackages will undertake the same work as in JPA1. The changes will be highlighted in a future newsletter but they will primarily respond to the following issues highlighted by the Thematic Representatives, Co-ordinating Forum, Governing Board, Advisory Panel and EC:

- Extend the breadth of the research programme
- Provide greater partner involvement
- Develop critical mass in crucial areas of expertise
- Expand training and education
- Maintain and develop contacts with European scientists outside of the network
- Enhance the profile of Med-Vet-Net at the national levels of all Partner Institutes.

The new Workpackage programme, as described in previous newsletters is also included. In addition to these new workpackages, Workpackage 4 and Workpackage 6 will be extended and modified in order to complete delayed milestones and deliverables.

Over all the network activities in this first year have been extremely successful. 77% of the 38 expected milestones were completed on time and a further 8 were completed ahead of schedule. 78% of the expected 33 deliverables were completed on time and a further 8 were completed ahead of schedule.

**Third Thematic Meeting**
In addition, this month the final Thematic Meeting was held in Uppsala. The meeting was organised locally by Eva Olsson Engvall with help from several colleagues. Forty Thematic Representatives, or their deputies, attended the three day meeting.

The tasks of this final meeting were challenging:

- Review the process of Workpackage Planning and the roles of the Thematic Co-ordinators in JPA2
- Finalise the Science Strategy Document for publication in December
- Complete the plans for the State-of-Art Reviews for publication in January

Thematic Co-ordinators Emma Snary (Risk Research); Eduardo Pozio (Detection and Control); Eva Olsson Engvall (Host-Microbe interaction) and their deputies and teams worked hard to ensure that good progress was made. Particular thanks go to Anne-Marie Kaeboher, who with the help of Katri Javala, took over, at the last minute, the responsibility for the Epidemiology Thematic Group to develop their strategy and review documents. The working documents from this meeting are beginning to go on to the private website and all comments and suggestions should go to the relevant leader named above.

**Diane Newell and Claire Cassar**

The next General Meeting
At the Co-ordinating Forum and Governing Board meetings, enthusiastic approval was given to hold the next General meeting in Malta, probably in mid May next year.
SALMONELLA WORKSHOP

Med-Vet-Net: Workshop on Salmonella control in poultry, from feed to farm

With the Salmonella control regulation (2160/2003) coming into force, there is a need for exchange of best practices and better knowledge between all stakeholders. The regulation will begin gradually, starting with Salmonella control in poultry. Consequently, under the auspices of Med-Vet-Net, a workshop on this subject will be held from 13-17 March 2006 in Sweden. We anticipate that a lot of money could potentially be saved in Salmonella control by using the best practices approach.

The objectives of the workshop are to have an exchange on best practices by presenting Salmonella control programs including surveillance feed control, and clean-up control options in primary production. Based on presented facts, participants will be expected to contribute in the workshop by discussing their own experience of implementing Salmonella control in their countries. By the end of the workshop, the participants should be able to suggest strategies and programs for Salmonella control in feed and primary production adapted to their local circumstances.

This workshop will be most appropriate for individuals responsible for the design and/or implementation of national Salmonella control programs. Each Med-Vet-Net institute will be allocated one free place on the course. There are also 25 additional places at the delegate’s own cost. In this case, the conference fee is €300 with an additional fee of €150 to cover the cost of the hotel and meals. These additional places will be available on a first come, first served basis.

The course language will be in English.

Further information on the workshop can be found at http://www.medvetnet.org/salmonellaworkshop

Please forward this information to all relevant persons in your country that could benefit from this workshop.

Science Communication Internship Update

Here at the Communications Unit we’re into the second month of the packed Science Communication internship timetable. So far our interns have enjoyed a range of activities at our temporary office accommodation in Milton Keynes, UK.

We’ve all learnt a lot about the key skills required of a communicator, from giving effective presentations, to networking successfully. These skills were put to the test at the EURAGRI conference in York on 21-23 September 2005. The interns interviewed Antoinette Betschart, the associate administrator of the American Agriculture Research Service (ARS) and Howard Dalton, the Chief Scientist for DEFRA, UK. These interviews will be published in forthcoming newsletters. The philosophy behind science communication has been discussed at length and we’ve heard about the importance of effective communication, which includes when to say nothing at all, from the perspective of crisis management in industry.

We have also had the opportunity to travel further afield visiting key stakeholders. This includes a visit to Biotechnology trade association, EUROPA BIO, and the MEP Philip Whitehead in Brussels. The question of science policy being governed by the perception of public opinion was raised and a lot of money could potentially be saved in Salmonella control programs by using the best practices approach.

The remaining time of the internship is equally busy and will equip the interns with a full range of skills to enable them to become effective science communicators.

Lucy Harper

EXTERNAL CONGRESS

Communicating European Research 2005 International Conference Brussels Exhibition Center (Heysel) 14-15 November 2005

Based on the very positive feedback from the 2004 conference, this event will focus on the manifold aspects of science communication and will provide an excellent forum and meeting place for scientists, communication professionals and journalists. The conference will also take stock of the way towards the Seventh Framework Programme.

A round 300 participants will meet to promote mutual understanding of their respective roles, to share best practice and to define strategies to improve communication, outreach and dissemination of research results to the public and the press at a European level.

An exhibition will feature selected research initiatives as well as communication strategies of research organisations.

At the time of CER 2005, the preparation of the 7th Framework Programme will be in full swing and the current state of play will be presented. Please visit http://europa.eu.int/comm/research/conferences/2005/cer2005/index_en.html

Epidemiology and Vaccines SFAM Winter Meeting, The Royal Society, Carlton House Terrace, London, UK 5 January 2005

This one day meeting includes a variety of aspects of vaccine use and epidemiology; from MMR to Bioterrorism vaccines. A plenary session, including a presentation on avian flu will be followed by two parallel sessions;
A. Postcodes to Pandemics - including TB vaccines and the effects of climate change
B. Current Vaccine issues - including vaccination against MRSA

Further information and online booking are available at www.sfam.org.uk/janmeet.html or email meetings@sfam.org.uk

4th International Veterinary Vaccines and Diagnostics Conference (IVVDC)
Oslo, Norway 25-29 June 2006

The conference provides an excellent opportunity to meet colleagues and be updated on recent progress and future perspectives in the fields of vaccinology and diagnostics. The IVVDC has become an important meeting place for regulatory authorities, pharmaceutical companies and the scientific community.

An exciting scientific program has been prepared covering the various areas of vaccinology and diagnostics. Please visit: http://www.vetinst.no/inet_eng/index.asp?strUrl=1002147&topExpand=&subExpand=

CONGRESS

Communicating European Research 2005 International Conference Brussels Exhibition Center (Heysel) 14-15 November 2005

Based on the very positive feedback from the 2004 conference, this event will focus on the manifold aspects of science communication and will provide an excellent forum and meeting place for scientists, communication professionals and journalists. The conference will also take stock of the way towards the Seventh Framework Programme.

Around 300 participants will meet to promote mutual understanding of their respective roles, to share best practice and to define strategies to improve communication, outreach and dissemination of research results to the public and the press at a European level.

An exhibition will feature selected research initiatives as well as communication strategies of research organisations.

At the time of CER 2005, the preparation of the 7th Framework Programme will be in full swing and the current state of play will be presented. Please visit http://europa.eu.int/comm/research/conferences/2005/cer2005/index_en.html

Epidemiology and Vaccines SFAM Winter Meeting, The Royal Society, Carlton House Terrace, London, UK 5 January 2005

This one day meeting includes a variety of aspects of vaccine use and epidemiology; from MMR to Bioterrorism vaccines. A plenary session, including a presentation on avian flu will be followed by two parallel sessions;
A. Postcodes to Pandemics - including TB vaccines and the effects of climate change
B. Current Vaccine issues - including vaccination against MRSA

Further information and online booking are available at www.sfam.org.uk/janmeet.html or email meetings@sfam.org.uk

4th International Veterinary Vaccines and Diagnostics Conference (IVVDC)
Oslo, Norway 25-29 June 2006

The conference provides an excellent opportunity to meet colleagues and be updated on recent progress and future perspectives in the fields of vaccinology and diagnostics. The IVVDC has become an important meeting place for regulatory authorities, pharmaceutical companies and the scientific community.

An exciting scientific program has been prepared covering the various areas of vaccinology and diagnostics. Please visit: http://www.vetinst.no/inet_eng/index.asp?strUrl=1002147&topExpand=&subExpand=

Epidemiology and Vaccines SFAM Winter Meeting, The Royal Society, Carlton House Terrace, London, UK 5 January 2005

This one day meeting includes a variety of aspects of vaccine use and epidemiology; from MMR to Bioterrorism vaccines. A plenary session, including a presentation on avian flu will be followed by two parallel sessions;
A. Postcodes to Pandemics - including TB vaccines and the effects of climate change
B. Current Vaccine issues - including vaccination against MRSA

Further information and online booking are available at www.sfam.org.uk/janmeet.html or email meetings@sfam.org.uk

CONTACT US

Med-Vet-Net News is published monthly by the Med-Vet-Net Communications Unit.
Editors: Teresa Belcher and Lucy Harper
Email: communications@medvetnet.org
Ph: +44 (0)1234 271020
Fax: +44 (0)1234 271025
Postal Address:
Society for Applied Microbiology, The Blore Tower, The Harpur Centre, Bedford, MK20 1TQ, UK
Contributions and suggestions are welcome.
Deadline for publication is 1st of each month.
©Med-Vet-Net, October 2005
Med-Vet-Net is a European Network of Excellence on Zoonoses Research
Visit http://www.medvetnet.org